

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

- 1 1. (previously presented). A gateway for mobile communications, comprising:
2 a cache for storing network data recently downloaded from a network;
3 a mobile IP foreign agent; and
4 a packet filter that directs requests for the network data from a mobile node to the
5 cache,
6 the packet filter directing the requested network data from the cache to the mobile
7 node by way of the foreign agent, without forwarding the requested network data to a
8 home agent of the mobile node.
- 1 2. (original) The gateway of claim 1, further comprising a storage device that stores
2 a state of the mobile node, the state of the mobile node being updated in the storage
3 device when the mobile node moves from the proximity of the gateway to the proximity
4 of a second gateway having a second foreign agent,
5 wherein the packet filter directs the requested network data from the cache to the
6 mobile node by way of the second foreign agent, without forwarding the requested
7 network data to the first foreign agent or a home agent of the mobile node, while the
8 mobile node is in the proximity of the second gateway.
- 1 3. (original) The gateway of claim 2, wherein the state of the mobile node in the
2 storage device is updated in response to a message from the second gateway.
- 1 4. (original) The gateway of claim 1, wherein the packet filter adds at least one
2 packet-mangling rule to a set of firewall policies associated with the mobile node.

1 5. (original) The gateway of claim 4, wherein the at least one packet-mangling rule
2 is user-specific.

1 6. (original) The gateway of claim 5, wherein the gateway has at least one port for
2 coupling directly or indirectly to an 802.11 access point.

1 7. (original) The gateway of claim 1, wherein the packet filter performs multi-level
2 filtering.

1 8. (original) The gateway of claim 1, wherein the packet filter performs network
2 layer filtering and one of the group consisting of transport layer filtering and application
3 layer filtering.

1 9. (previously presented) A gateway for mobile communications, comprising:
2 a cache for storing network data recently downloaded from a network;
3 a foreign agent;
4 means for directing requests for the network data from a mobile node to the
5 cache; and
6 means for directing the requested network data from the cache to the mobile node
7 by way of the foreign agent, without forwarding the requested network data to a home
8 agent of the mobile node.

1 10. (original) The gateway of claim 9, further comprising a storage device that stores
2 a state of the mobile node, the state of the mobile node being updated in the storage
3 device when the mobile node moves from the proximity of the gateway to the proximity
4 of a second gateway having a second foreign agent,
5 wherein the data directing means directs the requested network data from the
6 cache to the mobile node by way of the second foreign agent, without forwarding the
7 requested network data to the first foreign agent or a home agent of the mobile node,
8 while the mobile node is in the proximity of the second gateway.

1 11. (original) The gateway of claim 10, wherein the state of the mobile node in the
2 storage device is updated in response to a message from the second gateway.

1 12. (original) The gateway of claim 9, wherein the request directing means includes a
2 packet filter module that adds at least one packet-mangling rule to a set of firewall
3 policies associated with the mobile node.

1 13. (original) The gateway of claim 12, wherein the at least one packet-mangling rule
2 is user-specific.

1 14. (original) The gateway of claim 9, wherein the gateway has at least one port for
2 coupling directly or indirectly to an 802.11 access point.

1 15. (previously presented) A method for mobile worldwide web access, comprising:
2 caching network data recently downloaded from a network in a cache;
3 directing requests for the network data from a mobile node to the cache; and
4 directing the requested network data from the cache to the mobile node by way of
5 a foreign agent collocated with the cache, without forwarding the requested network data
6 to a home agent of the mobile node, while the mobile node is proximate to the cache.

1 16. (previously presented) The method of claim 15, further comprising:
2 storing a state of the mobile node at a first gateway that includes the cache;
3 updating the state of the mobile node when the mobile node moves from the
4 proximity of the first gateway to the proximity of a second gateway having a second
5 foreign agent; and
6 directing the requested network data from the cache to the mobile node by way of
7 the second foreign agent, without forwarding the requested network data to the first
8 foreign agent or a home agent of the mobile node, while the mobile node is in the
9 proximity of the second gateway.

1 17. (original) The method of claim 16, further comprising updating the state of the
2 mobile node in response to a message from the second gateway.

1 18. (previously presented) A computer readable medium encoded with computer
2 program code, wherein, when the code is executed by a processor, the processor performs
3 a method for mobile communications, comprising:

4 caching network data recently downloaded from a network in a cache;
5 directing requests for the network data from a mobile node to the cache; and
6 directing the requested network data from the cache to the mobile node by way of
7 a foreign agent collocated with the cache, without forwarding the requested network data
8 to a home agent of the mobile node, while the mobile node is proximate to the cache.

1 19. (previously presented) The computer readable medium of claim 18, wherein the
2 method further comprises:

3 storing a state of the mobile node at a first gateway that includes the cache;
4 updating the state of the mobile node when the mobile node moves from the
5 proximity of the first gateway to the proximity of a second gateway having a second
6 foreign agent; and
7 directing the requested network data from the cache to the mobile node by way of
8 the second foreign agent, without forwarding the requested network data to the first
9 foreign agent or a home agent of the mobile node, while the mobile node is in the
10 proximity of the second gateway.

1 20. (original) The computer readable medium of claim 19, wherein the method further
2 comprises updating the state of the mobile node in response to a message from the second
3 gateway.